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| EXAMINER | |
|---|---|
| HSU, AMY R | |

| ART UNIT | PAPER NUMBER |
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| 2622 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/519,477 | HAMADA ET AL. | |
| | Examiner | Art Unit | |
| | AMY HSU | 2622 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *15 July 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/6/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/15/2009 has been entered.

### *Response to Arguments*

2. Applicant's arguments filed 7/15/2009 have been fully considered but they are not persuasive. After careful examination and consideration of the amended claim language in view of the applicant's detailed specification and drawings, the Office still holds the interpretation of claims and rejections as set forth in the final rejection mailed 1/8/2009.

Applicant argues that the cited art and final rejection do not teach the limitation of claim 1, "…an image data playback unit for *operating while the continuous photographing function is set*..." Applicant's interpretation of the above claim language is that the image data playback unit is operating (continuously and simultaneously displaying plurality of original image data stored) while the continuous photographing function is set *and the device is in capture mode or in a state ready to capture.* Thus applicant argues that it is clear that the continuous photographing function is a function

where images may be captured. The Office agrees that "the continuous photographing function" is a function that can be set in capture mode which allows a user to press a shutter button once and capture a plurality of images continuously and thus is a variety of capture function. However the point in contention is not the above, but rather, based on the claim language whether the image data playback unit is operating in capture mode or in reproduction mode. The Office holds that based on the currently amended claim language the image data playback unit is operating while the continuous photographing function is set, however it is open to interpretation whether said playback unit is in capture mode or not for the reasons set forth below. In other words, it is open to interpretation whether the continuous photographing function necessarily means capture mode or if it can still be considering *set* during playback mode.

First, a plurality of image data is captured continuously and this obviously must occur during capture mode and after the continuous photographing function is set. However, conventionally in the art when the user switches to playback mode the photographing settings that were set before capture are still set unless something else negates the setting such as undoing the settings or overriding with other settings or a default setting. For example going from playback mode back to capture mode could reset to default settings and thereby undo the user settings, but still until the settings are reset in some way, the original settings are still set. This interpretation is based on what is conventional in the art and thereby applied since the claim does not limit otherwise. Therefore to address the amended portion of the claim, "...an image data playback unit for *operating while the continuous photographing function is set..."* could be during

reproduction mode because the continuous function is still *set* during reproduction mode although the device is not capable of capturing. In the same way as when a person sets his cell phone to vibrate/silent setting and then turns off his cell phone, the vibrate setting is still *set*, until the user turns on the cell phone and resets the ringer to higher volume. In other words the setting does not have to be currently applied or used for it to be considered "set", unless specified.

Second, the term "playback" is well known in the art to mean displaying of captured photos, and is synonymous with reproduction mode, or display mode, or playback mode, which is a separate function than capture mode. One of ordinary skill in the art would interpret "playback unit" to be operating in playback mode and thus the continuous function is still set during playback mode. Applicant argues in page 7 of remarks that "the continuous photographing function" has antecedent basis back to "a continuous photographing function" during which image data was captured. It is agreed that from the claim it's clear that said function is a function where images may be captured. However the claim does not require the function to be functioning, which is continuously photographing, but only "set", interpreted as still set after functioning, at the time of operation of the playback unit.

Consideration of the currently amended claim language still broadly leaves room for the above interpretation and thus the previous grounds rejection is held.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sogabe et al. (US 7176964) in view of Umeyama (US 2002/0057473).

Regarding Claim 1, Sogabe teaches an apparatus comprising:

a photographing unit for converting incident light into an electric signal and outputting as image data a plurality of original image data captured during a continuous photographing function by a single operation of a shutter button (*Col 4 Lines 38-39, continuous pickup mode where image pickup is repeated at a specified interval)*;

a first image data storage unit for temporarily storing the plurality of original image data obtained with a the continuous photographing function of said photographing unit (*Col 3 Lines 51-53)*;

a display unit for displaying said original image data (*Fig. 2)*; and

an image data playback unit for ***operating while the continuous photographing function is set by (Col 5 Line 42 teaches the continuous photographing function is set Lines 65-67 teaches the processing after capture if according to which function was selected and Col 6 Lines 21-40 teaches reproduction or playback which shows a plurality of stored captured images)***

continuously and simultaneously displaying on said display unit the plurality of said original image data stored in said first image data storage unit (*Col 6 Lines 34-37)*, until input from a user is received (*Fig. 5 #105)*.

Sogabe does not teach the apparatus in a mobile phone. One of ordinary skill in the art realizes that image capturing apparatuses can be used in different devices, especially as used in computers or cell phones is very well known. Umeyama teaches a camera apparatus and in paragraph 68 teaches an example of the above where the camera can be incorporated into a personal computer or cellular phone. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe by applying the camera taught by Sogabe into a cellular phone because cellular phones are increasingly improving quality of camera functions and are well known to incorporate more advanced features previously only seen on cameras.

Regarding Claim 2, Sogabe in view of Umeyama teach the mobile phone equipment according to claim 1 however is silent on thumbnail images. It is well known to those skilled in the art that image pickup devices generally have a thumbnail function for the user to see a low resolution image as a way to preview images captured all at once. Umeyama teaches a thumbnail image data generation unit for generating thumbnail image data from said original image data (*Fig. 3 step S14 and paragraph 50 teach the original image is processed to prepare a thumbnail image)*, wherein on said display unit, an overview of said thumbnail image data of the plurality of original image data is displayed after the plurality of said original image data are obtained (*Fig. 6A and*

*paragraph 59)*. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe by realizing a thumbnail function in order to give the user a preview of multiple images at once. It would be possible to view more images by producing a lower resolution thumbnail version of the actual photographed image, which would allow the user to look through more captured images faster.

Regarding Claim 3, Sogabe in view of Umeyama teach the mobile phone equipment according to claim 2, but is silent on distinguishing between separate functions of storage devices within the apparatus. However, it is well known to those of ordinary skill in the art for a typical camera to comprise a buffer or temporary memory to process the captured image, as well as a more permanent storage to store the processed images. Umeyama teaches a second image data storage unit for permanently storing image data (*Fig. 2 reference number 208),* wherein in the second image data storage unit, the plurality of said original image data and said thumbnail image data are stored in an identical folder (*Fig. 4 shows that the thumbnail and the main image data are part of the same file, therefore the image and the thumbnail are in the same folder if they are in the same file).* It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe with the ordinary features exemplified by Umeyama to realize an image pickup apparatus with temporary and permanent storage spaces as described above as well as saving the thumbnails with their corresponding images in order to increase speed of

processing, optimize storage space, and ease organization of file management.

Regarding Claim 4, Sogabe in view of Umeyama teach the mobile phone equipment according to claim 2, and similar to the discussion of claim 3 is silent on distinguishing common features of storage. Umeyama specifically defines a well known storage configuration including a temporary type storage unit, where said original image data and said thumbnail image data are temporarily stored (*paragraph 50 teaches that the image data and the thumbnail are stored in the temporary storage, 207).* It would have been obvious to one of ordinary skill in the art at the time of the invention to modify for the same reason as that above.

Claim 5 is rejected with the same art and rational as claim 3.

Regarding Claim 6, Sogabe a device comprising:

a photographing unit for converting incident light into an electric signal and outputting as image data a plurality of original image data captured during a continuous photographing function by a single operation of a shutter button; and

an image data playback unit for reading said original image data from said folder ***operating while the continuous photographing function is set by (Col 5 Line 42 teaches the continuous photographing function is set Lines 65-67 teaches the processing after capture if according to which function was selected and Col 6 Lines 21-40 teaches reproduction or playback which shows a plurality of stored***

***captured images)*** continuously and simultaneously displaying said plurality of original image data obtained through the continuous photographing function on said display unit, while the continuous photographing function is set, until input from a user is received (*as addressed with claim 1)*. However is silent on application in a cellular phone as well as details of storage. Umeyama teaches the applied use in a cellular phone as addressed with claim 1, and thumbnail image data generation unit with display of thumbnail images as well as storing said original image data and said thumbnail image data in an identical folder. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe with that of Umeyama for the same motivations as addressed with Claims 2 and 3.

Regarding Claim 7, Sogabe in view of Umeyama teach the mobile phone equipment according to claim 6, wherein in said image data playback unit, the plurality of said original image data are displayed on said display unit with a constant time interval (*Col 4 Lines 35-37 teaches a reproduction mode where images are displayed at a specified interval)*.

Regarding Claim 8, Sogabe in view of Umeyama teach the mobile phone equipment of claim 1, wherein the plurality of image data is displayed on the display until an input is received from a user of the mobile phone equipment (*as addressed with claim 1)*.

Regarding Claim 9, Sogabe in view of Umeyama teach the mobile phone equipment of claim 8, official notice is taken that a delete button is well known to exist on image pickup devices for the user to indicate deletion of an image. It is well known that the user input of pressing the delete button will interrupt a currently displayed image display screen. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe in view of Umeyama to realize a function of a delete button which interrupts a display screen. This would be obvious to allow users to delete images which are not desired to be saved.

Regarding Claim 10, Sogabe in view of Umeyama teach the mobile phone equipment of claim 8, further comprising: a thumbnail image data generation unit for generating thumbnail image data from said original image data (*Umeyama Fig. 3 as addressed with claim 2)*, official notice is taken that a save button is also well known, where upon receipt of the save input, the image data is permanently stored along with thumbnail data. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe in view of Umeyama to realize a save option command for the user.

Regarding Claim 11, Sogabe in view of Umeyama teach the mobile phone equipment of claim 6, wherein the image data storage unit stores said original image

data and said thumbnail image data captured during the continuous photographing function in an identical folder (*as addressed with claim 3)*.

Regarding Claim 12, Sogabe teaches a method for capturing and managing image data captured during a continuous photographing operation comprising: capturing a plurality of original image data during the continuous photographing operation by a single operation of a shutter button, while a continuous photographing function is set (*Col 4 Lines 38-39)* and continuously and simultaneously displaying the plurality of image data on a display until input from a user is received; *(Col 6 Lines 34-45*); Sogabe does not teach thumbnail data associated with the image data or details of storage, however the following limitations are well known and commonly used in the art. Umeyama exemplifies the following limitations by teaching a similar image capturing device which generates a plurality of thumbnail image data corresponding to each of the plurality of original image data (*Fig. 3 reference number S14)*; temporarily storing the plurality of original image data and the plurality of thumbnail image data in a first storage unit (*paragraph 50 and 46 teach both image data and thumbnail data are stored in a buffer memory)*, permanently storing the plurality of original image data and the plurality of thumbnail image data together in a folder in a second storage unit when input is received to permanently store the plurality of original image data and the plurality of thumbnail image data (*S16, and Fig. 2 #208)*; and deleting the plurality of original image data and the plurality of thumbnail image data when input is received to delete the plurality of original image data and the plurality of thumbnail image data (*Fig. 3 when*

*the flow goes from S1 to S5 to S6 and the user ends the process the data is deleted).* It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe with well known features common of image pickup devices including temporary memory to process images as well as permanent memory to save images, ability to delete data in response to user command, and thumbnail images generated in association with image data. It would have been obvious to combine these well known features with the teaching of Sogabe in order to increase speed of processing, optimize storage space, and ease organization of file management.

Regarding Claim 13, Sogabe in view of Umeyama teach the method of claim 12, further comprising: receiving information representing a selection of the folder stored in the second storage unit; and executing continuous playback of the plurality of thumbnail image data stored in the selected folder. Official notice is taken that it is well known in the art for a user to select a folder or group of images for a slide show, which is a continuous playback. On a digital camera thumbnail images are typically used for the slide show playback since the screen is small. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Sogabe in view of Umeyama with the feature of a slide show operation of a user selected folder because this allows the user to quickly access the images captured.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMY HSU whose telephone number is (571)270-3012. The examiner can normally be reached on M-F 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin Ye/
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8/13/09